



**NATIONAL STANDARD OF THE
PEOPLE'S REPUBLIC OF CHINA**

GB/T 16716.2-2018

**Packaging and the environment -- Part 2: Optimization of the
packaging system**

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Foreword

GB/T 16716 "Packaging and the environment" is divided into six parts.

- Part 1. General rules;
- Part 2. Optimization of the packaging system;
- Part 3. Reuse;
- Part 4. Material recycling;
- Part 5. Energy recovery;
- Part 6. Organic recycling.

This Part is Part 2 of GB/T 16716.

This Part is drafted in accordance with the rules given in GB/T 1.1-2009.

This Part replaces GB/T 16716.3-2010 "Packaging and packaging waste - Part 3.

Prevention by source reduction". Compared with GB/T 16716.3-2010, in addition to editorial changes, the main technical changes of this Part are as follows.

- Add the Introduction;
- Modify the content of Scope (see Clause 1; Clause 1 of GB/T 16716.3-2010);
- Delete normative references CEN CR 13695-1 and CEN CR 13695-2 (see Clause

2 of GB/T 16716.3-2010);

- Add normative references GB/T 16483 and GB/T 17519 (see Clause 2);

- Delete the term and definition of "Prevention by source reduction" (see 3.1 of GB/T 16716.3-2010);
- Modify the terms and definitions about "Critical range of use reduction", "Preparation", and "Safety data sheet" (see 3.2, 3.8, and 3.9; 3.2, 3.5, and 3.6 of GB/T 16716.3-2010);
- Add terms and definitions of "Packaging optimization", "Packaging component", "Packaging constituent", "Packaging system", "Packaging waste", and "Substances hazardous to the environment" (see 3.1, 3.4, 3.5, 3.6, 3.10, and 3.11);
- Modify the relevant content of "Requirements" (see Clause 4; Clause 4 of GB/T 16716.3-2010);
- Modify the relevant content of "Assessment of optimization of the packaging system" (see Annex A; Annex A of GB/T 16716.3-2010);
- Modify the relevant content of "Examples of the application of assessment checklist for packaging system optimization" (see Annex B; Annex B of GB/T 16716.3-2010);
- Modify the relevant content of "Assessment and minimization of substances or mixtures hazardous to the environment" (see Annex C; Annex C and Annex D of GB/T 16716.3-2010);
- Delete the "Assessment flow chart for controlling the compliance of hazardous substances" (see Annex D of GB/T 16716.3-2010).

This Part uses the redraft law to modify and adopt ISO 18602.2013 "Packaging and the environment - Optimization of the packaging system".

Compared with ISO 18602.2013, this Part deletes 4.1 and C.2 in structure, and adds Annex D.

The technical differences between this Part and ISO 18602.2013 and their reasons are as follows.

- As for the normative references, this Part has made adjustments with technical differences, to adapt to the technical conditions of China. The adjustments are

mainly reflected in Clause 2 "Normative references". The specific adjustments are as follows.

- ? Replace ISO 18601 with GB/T 16716.1 which modifies and adopts the international standard;
- ? Replace ISO 21067 with GB/T 23156;
- ? Add reference to GB/T 16483;
- ? Add reference to GB/T 17519.

The following editorial change has been made to this Part.

- In order to be consistent with the existing standard system, change the name to "Packaging and the environment - Part 2.Optimization of the packaging system".

This Part was proposed by and shall be under the jurisdiction of National Technical Committee 49 on Packaging of Standardization Administration of China (SAC/TC 49).

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The previous edition of the standard replaced by this Part was released as follows.

- GB/T 16716.3-2010.

1 Scope

This Part of GB/T 16716 specifies the assessment requirements and contents for the

optimization of the packaging system.

2 Normative references

The following documents are indispensable for the application of this document. For the dated references, only the editions with the dates indicated are applicable to this document. For the undated references, the latest edition (including all the amendments) are applicable to this document.

GB/T 16483 Safety data sheet for chemical products - Content and order of sections

3 Terms and definitions

The terms and definitions defined in GB/T 16716.1 and GB/T 23156 and the following ones apply to this document.

The minimum value of packaging weight (volume) without affecting packaging performance, safety, and consumer (user) satisfaction.

4 Requirements

The packaging manufacturer can calculate and measure the presence of substances hazardous to the environment in its packaging on the basis of information associated with the packaging formulation and manufacturing process.

5 Assessment content for optimization of the packaging system

The assessment content that shall be considered in the determination of critical area(s) in packaging system optimization is as follows.

In the assessment process, both legislation and safety shall be considered together.

See A.3 for the description of the assessment content of critical area(s).

Annex A

(Informative)

Assessment of optimization of the packaging system

This annex details the methodology for using this Part for the assessment of packaging system optimization. It can be used for existing packaging or as an aid between packaging supplier and user in agreeing to a specification for new packaging.